

CLAIMS

1. A method of providing a substrate with viscous
5 medium, comprising the steps of:
applying the viscous medium onto the substrate;
inspecting the results of said application;
determining errors of the application based on said
inspection; and
10 correcting at least some of said errors.

2. The method as claimed in claim 1, wherein the
step of determining errors comprises the step of evaluat-
ing all of the determined errors and deciding to what ex-
15 tent the determined errors shall be corrected.

3. The method according to claim 1, wherein the step
of determining errors further comprises the step of
evaluating each of the determined errors and deciding on
20 proper corrective action.

4. The method according to claim 3, wherein the step
of determining errors comprises the steps of:
estimating for each of the determined errors the
25 time required for performing said corrective action; and
calculating the overall time required for corrective
action of all determined errors.

5. The method according to claim 1, wherein said
30 correction comprises jetting of additional viscous medium
onto the substrate and/or removing viscous medium from
the substrate.

6. The method according to claim 5, wherein the step
35 of correcting comprises the step of removing viscous me-
dium from positions on the substrate where viscous medium
has been unintentionally applied.

7. The method according to claim 5, wherein the step
of correcting comprises the step of removing surplus vis-
cous medium from positions on the substrate where more
5 viscous medium has been applied than intended.

8. The method according to claim 5, wherein the step
of correcting comprises the step of jetting of additional
viscous medium to positions on the substrate where no
10 viscous medium has been applied even though intended.

9. The method according to claim 5, wherein the step
of correcting comprises the step of jetting of additional
viscous medium to positions on the substrate where the
15 amount of applied viscous medium is insufficient.

10. The method according to claim 8 or 9, further
comprising the steps of:

inspecting the results of said jetting of additional
20 viscous medium;
determining errors of said jetting of additional
viscous medium based on said inspection; and
correcting at least some of said errors.

25 11. The method according to claim 1, wherein the
step of applying viscous medium is performed by jetting.

12. The method according to claim 5, wherein the
step of applying viscous medium is performed by jetting
30 and wherein the application of the viscous medium and the
jetting of additional viscous medium is performed by a
single jetting device.

13. The method according to claim 1, wherein the
35 step of applying viscous medium is performed by screen
printing.

14. The method according to claim 1, wherein the step of applying viscous medium is performed by contact dispensing.

5 15. The method according to claim 1, wherein said step of correcting is performed after said step of applying viscous medium has been completed.

10 16. The method according to claim 1, wherein said step of inspecting is performed after said step of applying viscous medium has been completed.

15 17. The method according to claim 1, wherein said step of inspecting and said step of correcting are performed simultaneously after said step of applying viscous medium.

20 18. The method according to claim 1, wherein said step of correcting is performed simultaneously with said step of applying viscous medium.

25 19. The method according to claim 1, wherein said step of inspecting is performed simultaneously with said step of applying viscous medium.

20. An apparatus for providing a substrate with viscous medium, comprising:

application means for applying the viscous medium onto the substrate;

30 inspection means for inspecting the results of said application;

processing means for determining application errors based on said inspection; and

35 correction means for correcting at least some of said errors.

21. The apparatus according to claim 20, wherein the processing means comprises evaluating means for evaluating each of the determined errors and deciding to what extent the determined errors shall be corrected.

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22. The apparatus according to claim 20 or 21, wherein said correction means comprises jetting means for jetting of additional viscous medium onto the substrate and/or removing means for removing surplus viscous medium
10 from the substrate.

23. The apparatus according to claim 20, wherein said application means is a jetting means.

15 24. The apparatus according to claim 20, wherein said application means is a jetting means and wherein said application means and said jetting means for jetting of additional viscous medium is the same jetting means.

20 25. The apparatus according to claim 20, wherein said application means is a screen printing means.

26. The apparatus according to claim 20, wherein said application means is a contact dispensing means.

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27. An apparatus for correcting application errors in connection with application of viscous medium on a substrate, said apparatus comprising:

30 processing means adapted to receive information of said errors in the application of said viscous medium; and

correction means for correcting at least some of said errors based on said information.

35 28. The apparatus according to claim 27, further comprising inspection means for inspecting the results of

said application, wherein said processing means receives said information from said inspection means.

29. The apparatus according to claim 27, wherein the
5 processing means comprises evaluating means for evaluating each of the determined errors.

30. The apparatus according to claim 27, wherein
said correction means comprises jetting means for jetting
10 of additional viscous medium onto the substrate and/or
removing means for removing surplus viscous medium from
the substrate.

31. A method of correcting application errors in re-
15 gard to viscous medium provided on a substrate, comprising
ing the steps of:

providing a jetting device; and
using said jetting device for correcting said er-
rors.
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32. An apparatus for providing a substrate with viscous medium, comprising:
an applicator for applying the viscous medium onto the substrate;
25 an inspection device for inspecting the results of said application;
a processor for determining application errors based on said inspection; and
a correction device for correcting at least some of
30 said errors.

33. The apparatus according to claim 32, wherein the processor is arranged for evaluating each of the determined errors and deciding to what extent the determined errors shall be corrected.
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34. The apparatus according to claim 32, wherein said correction device comprises a jetting device for jetting of additional viscous medium onto the substrate.

5 35. The apparatus according to claim 32 or 33, wherein said correction device comprises a removing device for removing surplus viscous medium from the substrate.

10 36. The apparatus according to claim 32, wherein said applicator is a jetting device.

15 37. The apparatus according to claim 32, wherein said applicator is a jetting device and wherein said applicator and said jetting device for jetting of additional viscous medium is a single jetting device.

20 38. The apparatus according to claim 32, wherein said applicator is a screen printer.

25 39. The apparatus according to claim 32, wherein said applicator is a contact dispenser.

40. An apparatus for correcting application errors
25 in connection with application of a viscous medium on a substrate, said apparatus comprising:

30 a processor adapted to receive information of said errors in the application of said viscous medium; and
 a correction device for correcting at least some of
 said errors based on said information.

35 41. The apparatus according to claim 40, further comprising an inspection device for inspecting the results of said application, wherein said processor receives said information from said inspection device.

42. The apparatus according to claim 40, wherein the processor is arranged for evaluating each of the determined errors.

5 43. The apparatus according to claim 40, wherein said correction device comprises a jetting device for jetting of additional viscous medium onto the substrate.

10 44. The apparatus according to claim 40 or 43, wherein said correction device comprises a removing device for removing surplus viscous medium from the substrate.

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